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ABSTRACT

This study examined public high school teachers' perceptions of school environment, focusing on satisfaction, collegiality, teacher-student relationships, discipline, principal leadership, equity, and teacher influence. It also investigated differences in attitudes by gender. Participating teachers from 8 schools in the Southern United States completed the Teacher's School Environment Survey. Data analysis indicated that teachers generally had positive perceptions of their school environments. Most enjoyed teaching in their current schools and did not want to leave the profession. Most thought their principals provided positive educational leadership. They also believed that most of their colleagues had a professional commitment to education and that they worked well with other teachers. They had good relationships with students and cared about students' interests and needs. Most believed they had certain influences on students. They were concerned about discipline, but they did not view it as a serious problem in their schools. Teachers perceived that there was racial inequality in their schools. There was an overall significant difference by gender in teachers' perceptions of their school environments, with females perceiving their school environments more favorably than males. (Contains 39 references.) (SM)

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Investigating High School Teachers' Perceptions of School Environment

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In past decades, the study of learning environment has gradually developed into an important research paradigm among education researchers. While student perceptions are used to measure classroom learning environment, teacher perceptions are usually used to measure school-level environment. The scope of school environment is generally broad. Its theoretical foundations are associated with the field of educational administration and rest on the assumption that schools can be viewed as formal organizations (Anderson, 1982; Fisher, Docker, & Fraser, 1991; Thomas, 1976). School environment is one of the most significant indicators for organizational strength. It involves a teacher's relationship with students, other teachers, and the principal. It has been found to be associated with the professional development of teachers, teacher morale, and teacher's sense of efficacy in the classroom (Fisher & Fraser, 1991a). It has also been identified as one of the most important aspects of an effective school (Keefe, Schmitt, Kelly, & Miller, 1993).

Investigating school environments is important for understanding school improvement and effectiveness. Research has found that school environment is related to student aspirations (Plucker, 1998) and student motivation for academic excellence (Pariso, 1991). Research has further found that, among secondary schools with disadvantaged students, schools vary in their cultural dimensions, and this variation correlates with differences in student achievement (Gaziel, 1997). For teachers, school environment has been found to be associated with teachers' professional and organizational commitment (Riehl & Sipple, 1996; Tarter, Hoy, & Kottkamp, 1990). For example, poor collegial relations have a negative impact on teacher commitment to teaching and consequently lead to teacher burnout (McLaughlin, 1993). Indeed, school climate or environment is documented as a major

factor in predicting teacher retention (Miller, Brownell and Smith, 1999).

Most research studies on school environments have focused on: (1) the development and validation of instruments (Fisher & Fraser, 1990, 1991b; Rental & Fraser, 1983); (2) the use of feedback from such data to evaluate school-based interventions and to improve schools (Fraser, Docker, & Fisher, 1988; Fraser, Williamson, & Tobin, 1987) ; (3) the comparison of teachers' actual and preferred school environments (Fisher, Docker, & Fraser, 1986; Templeton & Jensen, 1993) ; and (4) the examination of the relations between school environment and [several] variables like teacher-student relationships in classrooms (Fisher, Fraser, Wubbels & Brekelmans, 1993), teacher career satisfaction (Taylor & Tashakkori, 1995), teacher efficacy (Hoy & Woolfork, 1990), and organizational commitment (Tarter, Hoy, & Kottkamp, 1990).

Schools at different grade-levels have their own environmental characteristics. High schools are particularly unique in terms of their educational mission. They prepare students for entering either the work force or colleges. Their teachers often specialize in the course subject, and may have great influence on students' career choices. High schools generally have more male teachers than elementary schools. They tend to be bigger and have more students from diverse ethnic and cultural backgrounds than elementary schools. High school order has been found to be associated with student academic achievement (Gaddy, 1988). Classroom management and discipline are primary concerns of many high school teachers, especially beginners (Gregg, 1995; Templeton & Johnson, 1998). In some high schools, student discipline may emerge as a serious problem. In comparing the psychological climate of different types of schools, researchers have documented that high schools exhibit a less favorable school environment than elementary schools, especially in terms of innovation and the physical surroundings (Fraser, 1987). These

findings echo a less positive classroom learning environment in high schools than in elementary schools (Waxman & Huang, 1998). High school environment deserves further examination and effort to bring about improvement.

Even at the same school level, there are variations among teacher perceptions of their school environments. For example, teachers from high-performing schools reported a greater academic emphasis, a greater use of innovative instructional strategies, and better facilities and resources than teachers from low-performing schools. On the other hand, teachers in low-performing schools reported more discipline problems (Huang & Waxman, 1995a). Mentor teachers perceived a better school-level working environment than beginning teachers in the same schools, especially in terms of professional interest (Huang & Waxman, 1995b; Huang, Waxman, & Houston, 1993). Teacher subgroups may perceive their school environment very differently. Understanding these differences can help to identify variables that influence school environment and to design interventions that enhance desirable educational environments. Very little research, however, has investigated whether there are significant differences between male and female teachers' perceptions of their school-level environment. Furthermore, a number of educational studies have investigated gender difference among students' classroom learning environment, but very few have examined gender difference among teachers' school environment.

The purpose of this study is to assess high school environment and to provide some knowledge base of gender difference in school environment. More specifically, this study addresses three research questions:

1) What are high school teachers' perceptions of their school environment in the dimensions of satisfaction, collegiality, teacher-student relation, discipline, principal leadership, equity, and teacher influence?

2) Are there significant differences in high school teachers' perceptions of their school environment by gender?

3) Are there significant differences in high school teachers' background by gender?

Methods

Subjects

This study was conducted in 8 public high schools from the southern region of the United States. The sample consisted of 275 teachers who responded to a school environment survey. Of these teachers, 127 were male and 148 were female. About 20% of these teachers had less than five years of teaching experience, whereas over 60% of them had ten or more years of teaching experience. Over 45% of the teachers have taught less than five years at their current schools, and about 30% of them have taught over ten years at their current schools. Nearly 8% of the teachers were African American and the rest of them were white. These teachers taught a great variety of courses, including English, science, social science, mathematics, performance arts, computer and technology, and other subjects in broad categories.

Instruments

The instrument used in the present study is the Teacher's School Environment Survey. It was developed from several related instruments, including the School Learning Environment Questionnaire (Fisher & Fraser, 1990, 1991; Moos, 1979), the Comprehensive Assessment of School Environments (Keefe, Schmitt, Kelly, & Miller, 1993), the Organizational Climate Perception Questionnaire (Hoy, Tarter, Kottkemp, 1991), and the National Educational Longitudinal Survey (Ingels, Abraham, Karr, Spencer, & Frankel, 1990). It is consisted of seven scales: Job

Satisfaction, Collegiality, Teacher-Student Relations, Principal Leadership, Equity, Teacher Influence, and Discipline. The following figure lists the scale and an example of each scale.

Figure 1. Teacher's School Environment Survey Scales and Examples

Scale	Example
Satisfaction	I enjoy teaching in this school
Collegiality	I think teachers work well with other teachers in our school
Teacher-Student Relationship	Teachers go out of their way to help students succeed academically
Principal Leadership	I think that the principal provides positive educational leadership in our school
Equity	I think that most teachers accept racial and cultural differences
Teacher Influence	I feel that teachers have an impact in formulating school programs
Discipline	I think that this is an orderly, disciplined school

Each scale contains four to five items that are measured on a four-point Likert-type rating. The construct validity of the instrument was obtained by factor analyses and reported in prior studies. The internal Alpha reliability coefficients for the seven scales ranged from .50 to .87. The average discriminant validity (interscale correlation) coefficient is .34, suggesting that the instrument has adequate validity. The values of eta2 ranged from .06 to .21 with an average of .12, suggesting that about 12% of the difference in the school environment scales are accounted for by the teachers' school membership. Analysis of variance (ANOVA) results indicate that teachers in different schools vary significantly in their perceptions of six learning environment variables ($p < .01$). The only scale of no difference by school is Teacher Influence. Table 1 displays Cronbach alpha

reliability (internal consistency) coefficients and discriminant validity of the seven learning environment variables.

Procedures & Analysis

Prior to the end of the school year, a trained researcher contacted principals and arranged a time to conduct the teacher survey. Teachers answered the survey questions anonymously and were also assured of the confidentiality of their responses. The response rate was nearly 80%. Descriptive statistics report the means and standard deviations of the school environment variables of the high school teachers. A multivariate analysis of variance (MANOVA) was performed to test for significant differences in teachers' perceived school-level environments by gender. Chi-square tests were calculated to determine whether male and female teachers differed from each other on some background variables.

Results

Descriptive results indicate that these teachers generally had positive perceptions of their school environment. Table 2 displays the perceptions of all high school teachers. All scales had a mean score over 2.50 except Equity. The scale with the highest mean is Satisfaction, which is followed by Principal Leadership. The scale with the lowest mean is Equity, which is followed by Discipline. Within the gender subgroup, the highest rated scale by male teachers was Satisfaction, followed by Principal Leadership. The highest rated scale by female teachers was Satisfaction, followed by Teacher-Student Relations. For both male and female teachers, the scale with the lowest rating was Equity, followed by Discipline.

The MANOVA results reveal that there was an overall significant difference by gender in teachers' perceptions of their school environments ($F(7,267) = 11.04$, p

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< .001). Follow-up univariate analysis of variance (ANOVA) tests revealed that there were significant differences between the two groups on six scales. Table 3 displays the ANOVA results. Female teachers rated Satisfaction, Collegiality, Teacher-Student Relations, Equity, Teacher Influence and Discipline significantly higher than male teachers ($p < .001$). There was no significant difference between male and female teachers in their ratings of Principal Leadership.

Table 4 displays the demographic and professional background of male and female teachers. Frequency distributions indicate that male and female teachers shared some similarities in their demographic backgrounds. Chi-square results reveal that there were no significant differences by gender in school membership, ethnicity, total years of teaching experience, and years teaching at the current school. However, there was a significant difference by gender in the subject areas that teachers taught. There were more male than female teachers in science and performance arts, but more female teachers in English and foreign languages (chi-square = 27.52, $p < .01$) than their counterparts.

Discussion

The findings of the present study indicate that overall, high school teachers perceived favorably their school-level environment. Most of them enjoyed teaching in their current high schools and would not get out of teaching. This is consistent with [to] reports of previous studies that teacher job satisfaction is critical to teacher retention, teacher commitment, and school effectiveness (Miller, Brownell & Smith, 1999; Latham, 1998; Shann, 1998). This also supports a report of twelve hundred teacher profile surveys in nine southern states of the United States. Based on the environmental factors as described by respondents to this survey, it appears that this group of teachers is not predisposed to leaving the profession (Marlow, Inman,

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Betancourt-Smith, 1995).

A majority of these high school teachers thought that principals provided positive educational leadership in their schools, communicating effectively with teachers and offering teachers specific suggestions that work successfully in the classroom. Perhaps these teachers' perceptions of their school principals' communication effectiveness was tied to their satisfaction on the job, as was documented in prior studies (Whaley & Hegstrom, 1992). Cresswell and Fisher's (1996) research found that a positive relationship existed between the principal's leadership behavior and the teachers' perceptions of the school as empowering for them in their working environment.

These high school teachers also felt that most of their colleagues have a professional commitment to education, and that teachers worked well with other teachers in the school. They had good relationship with students. They cared about students' needs and interests. Many of these teachers went out of their way to help students succeed and were respected. A majority of teachers felt that teachers had an impact in formulating school programs. They also felt that teachers had certain influences on students, such as helping students to increase standardized test scores and preventing students from drop out. Many teachers were concerned about discipline, but did not view it as a serious problem in their schools. Pupil misbehavior has been identified as a predictor for burnout in secondary school teachers (Abel & Sewell, 1999). Low disciplinary problems perceived by these teachers may partially explain why the average year of teaching experience of these teachers was as long as 20 years.

The need for teachers to develop the skills, attitudes, knowledge, and sensitivity to work effectively with diverse student populations has been discussed by educators (Banks, 1991; Cochran-Smith, 1995). The results of the present study indicate that

teachers did perceive racial inequity in academic expectations and school standards. The relatively low score of Equity raise some concerns. Although nearly 50% of students were African American, only 8% of the teachers were African American. The disparity between the make-up of the teaching force and student population may partially explain the existence of this problem. It is critical to encourage more minority students to enter the teaching profession. Furthermore, a few researchers have suggested addressing this problem with pre-service prevention. For example, Frykholm (1997) used simulation games to help pre-service teachers feel and experience discrimination in classrooms, so that they become more understanding and sensitive to the difficult issues of equity and diversity in their teaching.

This study identifies gender as a variable differentiating teachers' perceptions of school environment. Female teachers perceived their school environment more favorably than did their male counterparts. They reported better relations with colleagues and students. They believed that they had greater influence than male teachers. They reported better discipline control and job satisfaction. There was a gender difference among the subject areas they taught, yet there was no significant correlation between teachers' perceptions of school environment and the subjects they taught.

Although the descriptive and correlational nature of this data prevents us from making any causal inferences, the findings of the present study raise several important issues that need future exploration. In particular, there are several significant school environment differences between male and female teachers. One plausible explanation for the disparities may be the differences in communication style. Research has found that the differences in communication styles between men and women influence the way they see the school environment and the way they work together. To foster a more favorable school environment for male teachers, the high

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school must be flexible and recognize the circumstances when the traditional male value of competition will be functional and helpful in the work environment, and when it may be better to use more collaborative strategies (Zanetic & Jeffery, 1995-96). Future research needs to explore the relationship between teachers' communication styles and their perceived school environment. In addition to communication styles, there are other variables related to the differences between male and female teachers' perceptions of their school-level environment. Future research also needs to identify these variables in order to address the gender issue in improving school environment.

Table 1. Reliability and Validity of the School Environment Variables

Scale	No. Item	Alpha Relia	Sati	Coll	TSRe	Prin	Equi	Tc In	Disc	Eta2	ANOVA F
Satisfaction	4	.71		.34	.35	.43	.26	.42	.32	.11	4.19**
Collegiality	4	.70			.53	.41	.44	.24	.44	.21	8.65**
Tch-stud Rela	4	.53				.28	.38	.31	.44	.09	3.33*
Princ.Ldrship	4	.84					.26	.26	.33	.16	6.16**
Equity	4	.50						.31	.32	.10	3.69**
Tch Influence	5	.59							.29	.06	2.14
Discipline	4	.67								.09	3.32*

* $p < .01$. ** $p < .001$

Table 2

High School Teachers' Perceptions of School Environment

Variable	M	SD
Satisfaction	3.32	0.52
Collegiality	2.94	0.45
Equity	2.27	0.36
Teacher Influence	2.75	0.45
Discipline	2.73	0.49

N=275

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Table 3

Comparison of Male and Female Teachers' Perceptions of School Environment

Variable	Male		Female		ANOVA
	M	SD	M	SD	F
	(n=127)		(n=148)		
Satisfaction	3.15	0.58	3.47	0.41	28.17*
Collegiality	2.78	0.67	3.08	0.39	33.49*
Teacher-Student Relationship	2.95	0.35	3.20	0.31	40.09*
Principal Leaderships	3.03	0.58	3.18	0.48	6.11
Equity	2.17	0.37	2.36	0.32	22.44*
Teacher Influence	2.60	0.46	2.87	0.39	27.63*
Discipline	2.55	0.52	2.87	0.40	33.23*

* $p < .001$.

Table 4.

Frequency Distributions of Teachers' Background

Variable	Male (%)	Female (%)	Chi-Square
Ethnicity			1.88
African American	7.87	5.41	
Anglo American	91.34	94.59	
Hispanic	0.79	0.00	
Total Years of Teaching Experience			0.28
Under 5 years	19.69	19.59	
6 to 10 years	14.17	16.22	
11to 15 years	23.62	22.97	
16 to 20 years	18.11	18.24	
21 years and more	24 41	22.97	
Years of Teaching at the Present School			1.25
Under 5 years	47.24	43.24	
6 to 10 years	22.05	27.03	
11to 15 years	15.75	16.22	
16 to 20 years	8.66	8.78	
21 years and more	6.30	4.73	
Subject Area			27.52**
Science	21.49	6.99	
Mathematics	12.40	16.08	
Computer Technology	10.74	10.49	
Social Sciences	22.31	20.28	
English and Foreign Languages	10.74	32 17	
Performance Arts, Physical Education	14.88	7.69	
Special Education, ROTC, etc.	7.44	6.29	

* $p < .01$.

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